

Jurgita Randakevičiūtė

The Role of Standard-Setting Organizations with Regard to Balancing the Rights Between the Owners and the Users of Standard-Essential Patents



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Volume 27

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Die Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data is available in the Internet at <http://dnb.d-nb.de>

at.: Munich, Munich Intellectual Property Law Center, Thesis "Master of Laws (LL.M.)" 2015, and Vilnius (Litauen), Vilnius University, Faculty of Law, Thesis "Doctor of Philosophy (PhD)", 2015

ISBN 978-3-8487-2328-7 (Print)
 978-3-8452-6427-1 (ePDF)

British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library.

ISBN 978-3-8487-2328-7 (Print)
 978-3-8452-6427-1 (ePDF)

Library of Congress Cataloging-in-Publication Data

Randakevičiūtė, Jurgita

The Role of Standard-Setting Organizations with Regard to Balancing the Rights Between the Owners and the Users of Standard-Essential Patents
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66 p.

Includes bibliographic references.

ISBN 978-3-8487-2328-7 (Print)
 978-3-8452-6427-1 (ePDF)

1. Edition 2015

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Foreword

This book is the result of a Master thesis written between June and early September 2014. Since then, while preparing this version, minor corrections and updates have been made. This work covers a dynamic and fascinating field of intellectual property and competition law, i.e. standardization, which I became interested in during my LL.M. studies at MIPLC.

In the process of writing this thesis, I have thoroughly benefited from the physical and human resources of the MIPLC. I am deeply indebted to the people, who I have met and became friends throughout the year 2013/2014, for their small or big comments and conversations, that have expanded my perspectives on many important questions of life, not only to those related to intellectual property and competition law. I am also obliged to my supervisor Professor Dr. Josef Drexel for his careful guidance and his dedicated valuable time. I must specially thank to two of my family members for their attention and patience every single day up to this moment: your support means a lot to me.

4 May 2015, Vilnius, Lithuania

Jurgita Randakevičiūtė

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Acronyms and Abbreviations

Art.	Article
CJEU	Court of Justice of the European Union
DVB Project	Digital Video Broadcasting Project
DRAM	Dynamic Random Access Memory
Commission	European Commission
ETSI	European Telecommunications Standards Institute
IPR Guide	European Telecommunications Standards Institute's Guide on Intellectual Property rights
IPR Policy	European Telecommunications Standards Institute's Intellectual Property Rights Policy
EU	European Union
FRAND	Fair, reasonable and non-discriminatory
Guidelines	Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements
IPRs	Intellectual Property Rights
JEDEC	Joint Electron Device Engineering Council
Law on Employee Inventions	The German Law on Employee Inventions
SEP	Standard-Essential Patent
SSO	Standard-Setting Organization
TFEU	Treaty on the Functioning of the European Union
WIPO Center	World Intellectual Property Organization Arbitration and Mediation Center

I. Introduction

Technology standardization, if properly performed, leads to benefits, both to the economic system and to the consumers. Technology standards reduce the transaction costs of modularity, foster specialization and division of labour, promote competition of inventors and producers within standards.¹ However, due to the fact that, usually standards are protected by patents (standard-essential patents (SEPs)), standardization weakens competition and creates entry barriers into the market for those undertakings, which do not own SEPs, and even for SEP owners themselves.

Such situation inevitably causes tension between intellectual property law and competition law that, in general, share the same objectives of promoting innovation and enhancing consumer welfare. Indeed, in order to keep the balance between the afore-specified goals, the standard-setting organizations (SSOs) come into play by requiring SEP owners to license SEPs on fair, reasonable and non-discriminatory (FRAND) terms. However, such an attempt to provide implementers with the right to use SEPs while satisfying the financial interests of the SEP owners, quite often leads to extensive litigation before the courts, where such questions as, what are the FRAND-compliant licensing terms for a concrete SEP or whether it is possible to apply an injunctive relief, are raised.

The above-described situation, due to the constantly growing importance of standards, calls for a solution. In general, when the standardization process before the SSOs takes place, it seems that it is a matter of the whole industry sector: usually a large number of participants of specific sector are taking part while choosing the most suitable technology. However, once a standard is established, all the SEP-related issues are left for the private companies to resolve on their own, or, if there is a dispute, they are being heard by the courts. The latter usually have neither the essential technical and economic expertise,² nor the understanding of the standardi-

1 Daniel F Spulber, ‘‘Innovation Economics: The Interplay Among Technology, Standards, Competitive Conduct, and Economic Performance’’ [2013] 9 (4) Journal of Competition Law and Economics 777, 825.

2 For example, while deciding upon the standard of the availability of the injunctive relief in SEP litigation, one is able to choose from a variety of economic theories, which might be in conflict with one another. This shows, that not only legal

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zation procedures in depth and, thus, are often incapable of reaching decisions, which would keep the balance between the rights of the SEP owners and the users by guaranteeing legal certainty for both parties in an efficient time frame.

Although, as it is claimed, standardization already existed two thousand years ago,³ the importance of this phenomenon, due to scientific and technological development, emerged at around 1990s.⁴ Since then, there is an extensive amount of literature, studies, reports and other different types of documents, which provide us with the analysis of standardization from legal, economic or technical point of view. Despite the attention, that this topic receives in the last years, standard-setting and implementation of standards in the industry remains an actual topic. This could be illustrated by the statements of the European Commission (Commission), according to which, standardization is understood as one of the main tools ‘to create growth and jobs in a smart, sustainable and inclusive way’.⁵

When speaking about standard-setting, it should be understood, that the standardization procedure concerns not only agreeing upon a technology standard. Such procedure also comprises the actions of making the *standard work*, making it *available* and *useful* for the whole industry. This requires a standard to be spread to all the participants of a specific sector, and such proliferation could be performed by licencing SEPs, which usually protect the standardized technology. However, taking into consideration the case law regarding SEPs’ licensing matters in the light of FRAND, it is clear that courts lack the necessary technical and economic knowledge to make decisions effectively and to provide the users with an access to the standard. Accessing a specific standard may be crucially important to any company, because even a temporary exclusion from fast-

but also technical or economic knowledge is required in SEP-related litigation. Please see: Nicolas Petit “Injunctions for Frand-Pledged Standard Essential Patents: The Quest for an Appropriate Test of Abuse Under Article 102 TFEU” [2013] 9 (3) European Competition Journal 677, 700.

- 3 Andrew L Russell “Standardization in History: A Review Essay with an Eye to the Future” in Sherrie Bolin (ed), *The Standards Edge: Future Generations* (Ann Arbor, MI: Sheridan Press 2005) 247-260, 247.
- 4 Joseph Farrel, “Standards and Intellectual Property” (1989) E-89-25 Working Papers in Economics, <<http://hoohila.stanford.edu/workingpapers/getWorkingPaper.php?filename=E-89-25.pdf>> accessed 11 September 2014.
- 5 Commission, Communication ‘A Stronger European Industry for Growth and Economic Recovery Industrial Policy Communication Update’ COM (2012) 582 final.

moving technology markets is able to cause serious harm to the business of market participants.⁶ In failure of such access, the balance between the rights of the owner and the users of SEPs is not kept. For this reason, SSOs, at least to some degree, should step in, while helping to solve the SEPs' licensing disputes in the stages that take place after the standard is set.

With regard to all the specified above, a part of the proposals, which may lead to a less extensive litigation regarding the licensing of SEPs, if implemented, could be an obligation of a SEP owner, that in those cases when a SEP holder and the user cannot agree on the licensing terms, including the royalty rates, the dispute will be solved by a special royalty setting body attached to a SSO. In addition, there is also a number of voices calling for the use of arbitration to resolve disputes concerning SEPs.⁷ Indeed, both proposals, if implemented, may lead to cost and time savings over the lengthy, recourse-intensive and multi-jurisdictional lawsuits that currently characterize SEP and FRAND-related disputes. In this case, when implementing these two solutions, SSOs and their internal documents governing the standardization procedures as well as the rights and obligations of SSO members may play an important role.

In this work, the possibilities of improving licensing mechanism of the SEPs by referring such disputes to alternative dispute resolution bodies with the help of SSOs, after the standard is set, and the legal issues arising in such situations will be analysed. For the purposes of achieving the afore-specified objective, the main tasks of this work would be the following:

1. To analyse the process of standardization within the SSOs.
2. To analyse the issues, which occur in the standardization proceedings and after the setting of the standard, that lead to the extensive litigation regarding the licensing of SEPs.
3. To analyse the role of SSOs in the SEPs' licensing processes by encouraging the referral of SEP licensing disputes to alternative

⁶ *Google/Motorola Mobility* (Case COMP/M.6381) Commission Decision [2012] OJ c 75, para 107.

⁷ Jorge J Contreras and David L Newman "Developing a Framework for Arbitrating Standards-Essential Patent Disputes", 4/21/2014 Journal of Dispute Resolution (2014), 1 (forthcoming).

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dispute resolution bodies and discuss the main competition law and institutional issues that may arise in connection with this type of dispute resolution.

The afore-specified aspects will be discussed from the perspective of the European Union (EU) legal framework.

II. SSOs and Their Functions in Standardization

A. *The Process of Standardization: Definition and Importance*

A technology standard could be defined as ‘any set of technical specifications that either provides or is intended to provide a common design for a product or process’.⁸ To become a standard, such specifications must undergo a process of examination and approval. All this could be performed through regulatory systems, private industry bodies, or just simple market acceptance by consumers, which recognizes that they deserve a wide adoption.⁹ Based on how the standards are set, legal literature distinguishes two ways of standard-setting: a) *de jure* and b) *de facto* standardization.

In the latter type, each company competes for the standard, and, thereby, for the market trying to convince all market participants to adopt a particular technology. In other words, *de facto* standards emerge if the technology of a specific company becomes predominant in the market.¹⁰ Once a specific technology has attracted a substantial number of customers, the benefits arising from the high number of persons already using this technology will be decisive competition parameter for convincing all other customers to accept this technology.

The other type of standard-setting, *de jure* standardization, is regarded as a procedure, which helps to elect the most superior technology as a standard and encourages the participation of all market players.¹¹ *De jure* standard-setting, which is regarded as highly dynamic and containing enormous

- 8 Kraig A Jakobsen ‘Revisiting Standard-Setting Organizations’ Patent Policies’ [2004] 3 Northwestern Journal of Technology and Intellectual Property 43, 45.
- 9 Keith Maskus and Stephen A. Merrill (eds), *Patent Challenges for Standard-Setting in the Global Economy: Lessons from Information and Communication Technology* (The National Academies Press 2013) 15.
- 10 Sven Sattler ‘Standardization under EU competition rules – the Commission’s new horizontal guidelines’ [2011] 32 European Competition Law Review 343, 344.
- 11 Josef Drexl ‘Intellectual Property in Competition: How to Promote Dynamic Competition as a Goal’ in Josef Drexl, Warren S. Grimes, Clifford A. Jones (eds), *More Common Ground for International Competition Law?* (Edward Elgar Publishing 2011) 210, 216.

complexity,¹² is performed by the help of SSOs. Nowadays there exists a variety of SSOs and nobody could argue that SSOs play a tremendous role in the standardization, which has an impact on the competition, the development of particular industries and the entire economic system.¹³

The general goal of SSOs is to bring benefits to the society by creating widely adopted industry standards.¹⁴ The establishment of a single version of a technology helps to create the interoperability of devices purchased from different producers, ease the product substitution, reduce consumer search costs and increase consumer confidence.¹⁵ Additionally, standardization allows downstream producers to devote resources to research and development of more widely useable consumer goods.¹⁶ When the standards are set correctly, the afore-specified objectives usually are met.

It should be mentioned, that technology developers often use patents to protect and commercialize their inventions and, ultimately, to support investments in research and development.¹⁷ When such patents are incorporated into standards, it may cause tension between the innovators, who own the SEPs and seek economic returns on their R&D investments, and the users of standardized technology, who wish to access the SEPs on affordable terms.¹⁸ The preservation of balance between the aforementioned interests regarding the *de jure* standards is a central problem for SSOs before the standard is set and, if after the establishing of the standard a litigation emerges, for the courts.

The afore-specified shows, that besides the benefits to the society of the establishment of widely adopted standards, standardization procedures and SSOs themselves contain internal contradictions, which may lead to re-

12 Sattler (n 10) 344.

13 Mark A Lemley ‘‘Intellectual Property Rights and Standard-Setting Organizations’’ [2002] 90 California Law Review 1889, 1891.

14 Jakobsen (n 8) 45, as cited in James De Vellis, *Patenting Industry Standards: Balancing the Rights of Patent Holders with the Need for Industry-Wide Standards*, 31 AIPLA Q.J. 301, 336 (2003).

15 Robert Tallman ‘‘U.S. and E.U. Antitrust Enforcement Efforts in the Rambus Matter: A Patent Law Perspective’’ [2012] 52 IDEA 31, 36.

16 Joel M Wallace ‘‘Rambus v. F.T.C. in the Context of Standard-Setting Organizations, Antitrust, and the Patent Hold-Up Problem’’ [2009] 24 Berkeley Technology Law Journal 661, 663 (as cited in Mark A. Lemley, *Ten Things to do About Patent Holdup of Standards (and One Not To)*, 48 B. C. L. REV. 149, 149 (2007)).

17 Maskus and Merrill (eds) (n 9) 16.

18 ibid 16.

A. The Process of Standardization: Definition and Importance

sults that are less than ideal and make competition law authorities look at the process of standardization with a certain level of suspicion. The first internal contradiction lying in the SSOs is that standardization is both a competitive and a co-operative process. Standard-setting requires competitors to collaborate and carries the risk of limiting competition: by setting detailed technical specifications for a product or service the scope for different and competing ways of technical development may be narrowed.¹⁹ This way the activities of SSO members may be regarded as agreements having as their object or effect the prevention, restriction or distortion of competition within the EU market and being prohibited under the Art. 101 (1) of the Treaty on the Functioning of the European Union²⁰ (TFEU).

However, Art. 101 (3) TFEU states, that the former provision is inapplicable to agreements contributing to the improvement of production or distribution of goods or to promotion of technical or economic progress, while allowing consumers a fair share of the resulting benefit. Therefore, Art. 101 TFEU does not preclude companies from participating in pro-competitive standard-setting processes. This is confirmed by the Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements (Guidelines).²¹ It should be mentioned, that the application of the afore-specified exemption becomes problematic, when the standard, after it is being set, is not available for the use of other markets participants, this way obstructing pro-competitiveness and innovation.

Secondly, the goal of SSOs is to set and promulgate a standard, which would be applicable in a specific industry sector. As it has been stated, usually the technology selected by the SSOs is protected by IPRs. Thus, standardization procedure places the owner of a specific IPR in an exclusive market position, that can lead to a market dominance and, later, can be easily abused and result in the restraint of the competition. This way the process of standardization may also result in the infringement of EU competition law as it is foreseen in the Art. 102 TFEU as the abuse of dominant position.

19 Sattler (n 10) 344.

20 Consolidated version of the Treaty on the Functioning of the European Union [2008] OJ C115/1.

21 Commission, ‘Guidelines of 14 January 2011 on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements’ OJ C 11, para 280.

Taking into consideration all the specified above, it is clear that, on the one hand, standardization is an essential process for fostering innovation among market participants and bringing benefits to all the economic system, whereas, on the other hand, this beneficial process is able to cause distortions of competition, which would obstruct further standardization and, thus, lead to less innovation and slower economic advancement. For this reason, it is important to discuss the standard-setting process and the role of SSOs while improving the licensing of *de jure* standards.

B. The Role of SSOs During Standardization and After the Standard Is Set

Due to the large variety of SSOs, it is difficult to state the precise number of SSOs that are active at any point in time in the world, because new collaborative efforts are launched on a weekly basis.²² It is acknowledged, that there is no universal taxonomy for distinguishing one type of SSO from another, thus, the acronym ‘SSO’ is used to describe all the organizations that collaboratively develop standards, including both ‘traditional’ SSOs as well as infinite number of consortia, alliances, Special Interest Groups and other organizations.²³

The main goal of the standardization is to make the standard accessible to all the relevant users. However, despite the prevailing approach, that the standards should be kept open to the users, as it has been stated above, the implementation of standards could require the use of a patented technology. This idea was first developed in 1932 by the American National Standards Institute’s Committee of Procedure, which claimed, that ‘each case should be considered on its own merits and if a patentee be willing to grant such rights as will avoid monopolistic tendencies, favourable consideration of the inclusion of such patented designs or methods in a standard might be given.’²⁴

22 Rudi Bekkers and Andrew Updegrove ‘IPR Policies and Practices of a Representative Group of Standards-Setting Organizations Worldwide’ (2013) <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2333445> accessed 6 September 2014, 6.

23 *ibid* 6.

24 Bekkers and Updegrove (n 22) 4. (as cited as in ANSI Minutes of Meeting of Standards Council, November 30, 1932. Item 2564: Relation of Patented Designs or Methods to Standards).

B. The Role of SSOs During Standardization and After the Standard Is Set

The afore-specified extract reveals the willingness of keeping the balance between owners and users of the standardized technology. This way SSOs occupy a middle ground between open and closed standards.²⁵ Generally, SSOs allow their members to own IPRs, but require those members to commit in advance to licensing those IPRs on specific terms. Therefore, one could conclude, that standards are open in the sense that no one can be prohibited from using them, but they also remain proprietary in the way, that those who would use the standards must pay royalties to the IPR owner.²⁶ It is claimed that this intermediate approach is a way of valuing IPRs, while at the same time reducing the risk that IPRs will impede standardization and hold up innovation.²⁷

As it was stated above, nowadays, standardized technology is usually covered by IPRs, therefore, the way in which SSOs respond to those who assert their IPRs becomes highly important.²⁸ Thus, special rules established by SSOs, which are governing the relevant IPRs, remain of high importance. These IPR rules usually are referred to as 'IPR policies'. The IPR policies may determine who will be able to sell compliant products, influence the incentives to develop new technologies or affect how standards may change if the specific technology improves.²⁹ For this reason, SSOs are strongly encouraged to take measures, so that the IPR policies would be able to balance the diverging interests between the owners and the users of the standardised technology. According to the Commission, 'a clear and balanced IPR policy <...>, adapted to the particular industry and the needs of the standard-setting organisation in question, increases the likelihood that the implementers of the standard will be granted effective access to the standards elaborated by that standard-setting organisation.'³⁰

Due to the fact, that nowadays the standardized technology is proprietary, it becomes crucially important not only to receive the consent of the owner of IPRs to license the SEP, but also to create conditions, that, after the standard is set, would really provide the implementers to receive all the

25 'Open' standards are regarded as standards which are not controlled by anyone and can be adopted freely by all market participants, whereas 'closed' or proprietary standards cannot be used without the permission of the standard owner (Patrick D. Curran "Standard-Setting Organizations: Patents, Price Fixing, and Per Se Legality" [2003] 70 The University of Chicago Law Review 983, 990).

26 Lemley (n 13) 1902.

27 ibid 1902.

28 ibid 1889.

29 ibid 1893.

30 Guidelines (n 21) para 284.

necessary licenses and access that technology for a certain royalty. Thus, if an undertaking's patent covers an industry standard, SSOs typically require the company to disclose that patent to all SSO members before the technology is considered as a potential industry standard. If the owner of the essential IPR wishes its technology to be approved as a standard, the owner is required to offer SSO's members licenses under FRAND terms.³¹

With regard to all the specified above, it is possible to state, that standardization consists of two stages: (i) selection of the standard and reception of FRAND commitment from the SEP owner and (ii) licensing of the SEP to all the users of that standard. For this reason, the analysis of the activities of SSOs in standard-setting could be divided into: (i) the role of SSOs during the standard-setting procedures, and (ii) their influence on the implementation of the standard into the industry after it is set. When it comes to the effective implementation of a standard into the industry sector, the IPR policies, which have the goal to ensure that all the known essential IPRs are available under FRAND license terms,³² are essentially important in determining the actions of SSOs and their members in both of the afore-specified stages.

SSOs usually are in the position to accommodate divergent interests of their members and try to accomplish that through IPR policies. It is claimed that, in order to achieve this objective, IPR policies encompass the following goals: (i) providing SEP owners with an adequate compensation for their patented technology taking into consideration the investments in R&D; and (ii) assuring the implementers of the standard the opportunity to profitably bring standardized products and services to the market, including by practicing patented inventions embodied in such products and services, and thereby allowing the broad adoption and uptake of the standard.³³

With regard to the afore-specified, it is possible to claim, that SSOs have the responsibility to design appropriate rules, in order to make the stand-

31 European Telecommunications Standards Institute's Intellectual Property Rights Policy (as amended 19 March 2013) para 6.1.

32 Bekkers and Updegrove (n 22) 104.

33 Pierre Larouche, Jorge Padilla and Richard S Taffnet, 'Settling FRAND Disputes. Is Mandatory Arbitration a Reasonable and Non-Discriminatory Alternative?' (2013) Hoover IP2 Working Paper Series 13003, 1 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2346892> accessed 18 August 2014, 7 (as cited in WiseHarbor, *A Compendium of Industry and Market Analysis Articles on Intellectual Property Mobile Communications Standards*, 6-7 (June 12, 2011)).

ardized technology accessible to the users, provide SEP owners with the necessary economic benefit and, at the same time, reduce the risk of competition law problems. Such a responsibility of SSOs is reflected in the Guidelines³⁴ that establish the directions for SSOs of how best to design their rules, in order to achieve the mentioned goals and avoid competition law issues in the future.

However, due to a variety of participants and diverging interests of the undertakings taking part in standardization, it becomes clear, that it is difficult to come up with clear rules governing the standard-setting procedures, which would work, according to the rule ‘one size fits all’, be enforceable, provide with legal certainty and be in conformity with public order. For this reason, there are four flexible criteria established by the Guidelines, which make the standard-setting more appropriate to competition law: (i) the requirement stating, that the standard-setting must be unrestricted; (ii) the transparency of the standardization procedure; (iii) the freedom of developing alternative standards or products that do not comply with the agreed standard; (iv) ensuring the access to the standard on FRAND terms.³⁵

One may regard the afore-specified criteria as too abstract. However, due to the extensive number of different types of SSOs acting in different industries, these requirements could be regarded as the most appropriate guidance that the Commission could establish. Such criteria provide the SSOs with certain, but at the same time wide legal standards, to which the IPR policies should adhere. Due to the variety of SSOs, different types of members of SSOs and the wide margin of the requirements to IPR policies, the latter documents vary depending on the SSO. Therefore, every IPR policy of every SSO require separate analysis, in order to understand whether it adheres the standards established by the EU legal framework.

Taking into consideration all the specified above, it is clear, that SSOs play a crucially important role in determining *de jure* standards that, later, may become the basis for the business activities of many undertakings. Therefore, SSOs must not only be viewed as entities performing administrative functions, but as important players of standardization process able to support the effective implementation of the standard in the industry, i.e. facilitate the licensing of the SEPs. In such situations, the way in which

34 Guidelines (n 21).

35 ibid paras 280-285.

SSOs, according to their IPR policies, take into consideration the IPRs and confer the obligations related to these IPRs on their members is of fundamental importance. For this reason, in the following part of this work, the IPR policy of European Telecommunications Standards Institute (ETSI), which is considered to be a good example of such type of documents, will be analysed and its impact on the rights as well as obligations of the owners and users of SEPs will be discussed.

C. European Telecommunications Standards Institute

ETSI is regarded as being one of the most commercially significant SSOs.³⁶ This SSO sets standards for the whole mobile telephony industry.³⁷ The standard-setting performed before ETSI is regarded as a highly complicated process, requiring many working hours of engineers.³⁸ The discussed SSO is well known for its quite extensive and continuously evolving IPR policy as well as for its cooperation with European Patent Office, in order to upgrade its IPR database, which includes thousands of patent disclosures.³⁹ In this part of the work, ETSI's IPR policy will be described as a good example of an IPR policy of a SSO.

Usually two types of provisions of the IPR policies of SSOs are pointed out as the most important: (i) the requirement for the owner of the essential IPR to disclose the relevant rights⁴⁰ and (ii) the requirement for the owner of the essential IPR to make an irrevocable FRAND declaration.⁴¹ These provisions are also found in ETSI's IPR policy. According to the ETSI's IPR policy, the term 'essential' as applied to IPRs means that it is not possible on technical grounds, taking into consideration normal technical practice and the state of the art generally available at the time of

36 Roger G Brooks ‘‘SSO Rules, Standardization, and SEP Licensing: Economic Questions from the Trenches’’ [2013] 9 (4) *Journal of Competition Law & Economics* 859, 860.

37 Robin Jacob ‘‘Competition Authorities Support Grasshoppers: Competition Law as a Threat to Innovation’’ [2013] 9 (2) *Competition Policy International* 15, 22.

38 *ibid* 22.

39 Bekkers and Updegrove (n 22) 22.

40 Intellectual Property Rights Policy (n 31) paras 4.1-4.2.

41 *ibid* para 6.1.

standardization, to make, sell, lease, otherwise dispose of, repair, use or operate equipment or methods which comply with the standard without infringing that IPR.⁴² The latter provisions are regarded as the main elements that many SSOs share in their IPR policies⁴³ and, therefore, these obligations will be discussed in the context of ETSI.

Firstly, understanding the rationale of the disclosure requirement indicated in the ETSI IPR policy is relatively easy. By obtaining the correct information what type of technology is already patented, the SSOs will be able to coordinate their actions while setting a more appropriate standard, and create better opportunities for the implementation of the standardized technology. In other words, it is in the interest of future implementers and users to receive as much information as possible before the standard is set.

Nevertheless, it is claimed, that such disclosure of relevant IPRs is more suitable for ideal world, where it is very easy to locate every patent and assess its validity.⁴⁴ However, we clearly live in a reality, where patent searches are costly and tend to be subjective. Knowing everything about the vast portfolio of patents or, if necessary, other IPRs is difficult for large companies,⁴⁵ whereas, smaller ones may face another problem: not having enough resources to monitor every standardization activity and every IPR they own. Thus, although understandable on the one hand, the discussed obligation regarding the disclosure, on the other hand, is susceptible to uncertainty, which, after the standard is set, may lead to competition law issues and extensive litigation regarding the licensing of standard covered by IPRs.

Indeed, ETSI has the most extensive disclosure obligation, which applies to all members and all standard activities, whether these parties are participating in the development of a certain standard or not, however, the accurateness of such a disclosure is based only on the knowledge of its members.⁴⁶ In addition, despite such extensive disclosure requirements, ETSI is among the group of SSOs explicitly stating, that patent searches are not required. ETSI's IPR policy states, that 'each member shall use its reasonable endeavours, in particular during the development of a standard or

42 ibid para 15.6.

43 Bekkers and Updegrave (n 22) 17.

44 Bekkers and Updegrave (n 22) 71.

45 David J Teece and Edward F Sherry "Standards Setting and Antitrust" [2002] 87 Minnesota Law Review 1913, 1945.

46 Bekkers and Updegrave (n 22) 72.

technical specification where it participates, to inform ETSI of its essential IPRs in a timely fashion.⁴⁷ Thus, in order to meet the requirements of ETSI, the owner of relevant IPRs must only use ‘reasonable endeavours’ while looking through their IPR portfolio and submit the information in a ‘timely fashion’. Such provisions clearly do not entail any IPR searches and provide with a wide margin of freedom for ETSI’s members to act during the standardization process. The afore-specified provisions of IPR policy allows to conclude, that many important aspects related to standardized technology covered by SEPs may appear only after ETSI sets the standard. This example calls for a discussion on the role of SSOs in the post-standardization procedures.

Secondly, in the SSOs, that have more formal IPR policies, the afore-discussed disclosure is typically intended to result in a commitment to license the IPRs to the users of the standard.⁴⁸ According to ETSI’s IPR policy, when essential IPR relating to a particular standard is disclosed, ETSI will request – but not oblige – the owner of the IPR to undertake in writing that it is prepared to grant irrevocable licenses on FRAND terms and conditions.⁴⁹ Such a FRAND commitment is like a middle ground between the right of the SEP owner to refuse to license and the access of SEP user to the technology: ‘A FRAND commitment <...> entails a promise by the IPR owner that it is prepared to engage in good faith negotiations with any company that will be defined in the light of all circumstances present between the two parties at the time of negotiations.’⁵⁰

However, with regard to afore-specified FRAND commitment, it should be mentioned, that ETSI’s IPR policy does not contain an obligation for the IPR owner to license its essential IPR. Rather, it provides that a standard or specification may not be approved unless the owner of essential IPR provides an assurance of its intentions. In this case, it is possible to state, that ETSI’s IPR policy is not able to make the commitment to license obligatory, because that would discourage the companies to participate in SSOs at all.

47 Intellectual Property Rights Policy (n 31) para 4.1

48 Bekkers and Updegrove (n 22) 71.

49 Intellectual Property Rights Policy (n 31) para 6.1.

50 Damien Geradin and Miguel Rato ‘‘Can Standard-Setting Lead to Exploitative Abuse? A Dissonant View on Patent Hold-Up, Royalty Stacking and the Meaning of FRAND’’ [2007] 3 European Competition Law Journal 101, 113.

In connection to all the specified above, it could be claimed, that although ETSI's IPR policy shows a clear standardization policy concern, i.e. to make the standard technology available, however, in reality the discussed document does not provide with effective instruments that would guarantee the availability of the technology without the risk of costly and lengthy litigation after the standard is set. Rather, ETSI's IPR policy clearly refers to FRAND commitment, which is very similar to a general clause, which is to be shaped and given the meaning by referring to concrete objective and subjective situation,⁵¹ and foresees a disclosure, which is based on the reasonable endeavours of the participants of the standardization. Such an approach reveals the general position of ETSI that a large part of the questions related to the availability of the technology, for example, setting of the royalty rates, could only be solved after the standard is established.

In addition, ETSI's IPR policy tries to clearly distinguish the technical and commercial and/or legal aspects of standard-setting. ETSI's Guide on IPRs states, that 'Discussion on licensing issues among competitors in a standards making process can significantly complicate, delay or derail its process.'⁵² This approach is also common to other SSOs. In addition, ETSI clearly states, that such discussions regarding legal and commercial aspects will not take place under its standard development activities, holding the view that its role is directed to technical rather than commercial issues.⁵³ This means that, according to ETSI, the determination of the FRAND character of a license will be evaluated outside this SSO.

Although nobody argues about the technical nature of ETSI and its goal to choose the most appropriate technology, such as the afore-described approach, which isolates technical questions from any legal and/or commercial aspects, may seem doubtful. A standardization procedure, which comprises the setting of the standard and implementing it, is the situation where three different, but highly important for any business spheres – economics, law and technology – come into play. In addition, the afore-discussed provisions of IPR policies: (i) the disclosure requirement, which should be regarded as a technical exercise, and (ii) the FRAND commitment, which to a large extent should be regarded as a commercial and/or economic question, in SEP and FRAND-related litigation proceedings

51 ibid 112.

52 European Telecommunications Standards Institute's Guide on Intellectual Property Rights (as amended 19 September 2013) s 4.1.

53 Geradin and Rato (n 50) 110 (as cited in ETSI's Guide on IPR s 4.1).

very often are among the most important issues that need to be dealt with. For this reason, a strict separation of the afore-specified fields in the standard-setting should be avoided. In order to reduce the number of SEPs and FRAND-related cases as well as improving the implementation of standards into the industries, the IPR policies or other internal documents of SSOs should contain provisions that would help solving the afore-specified post-standardization issues. In particular, the IPR policies could try to foresee how such disputes may be solved differently from the way they are being heard now, i.e. outside the national court systems.

With regard to all the specified above, it is possible to conclude, that the afore-described IPR policy is one of the elements for the success of widely applicable standards adopted by ETSI. The establishment of such a transparent access to the information on the essential IPRs through disclosure is one of main elements in the framework of ETSI's IPR policy. Such transparency allows ETSI to avoid competition law issues, whereas, the way the members are required to disclose essential IPRs reveals a clear understanding of the practical issues connected with such disclosure, i.e. the costly and time consuming search among the IPRs owned by ETSI members and hardly possible enforceability in case the afore-specified undertakings do not comply with the disclosure obligation.

In addition, the irrevocability of FRAND commitment itself, although not equal to a license, should be regarded as appropriate in the context of the standard-setting. As it will be discussed in further parts of this work, a reference to FRAND in the early stages of the standardization provides with flexibility, whereas, the irrevocability of the FRAND declaration creates higher possibilities, that the standard technology will be available for its users.

However, the question is whether, taking into consideration the complexity of circumstances and interests arising during standardization procedures, the afore-discussed strict avoidance of any economic or legal aspects related to IPRs in the activities of SSOs, is well founded and effective when it comes to better standard implementation and avoidance of extensive litigation after the standard is set.

III. Issues Related to Standardization Leading to Litigation

A. Patent Ambush as an Abuse of a Dominant Position

As it has been stated before, standard-setting through the SSOs is regarded as having particular advantages, such as, ‘offering a collective process of innovation, in which all the market participants are able to take part’.⁵⁴ Such *de jure* standardization provides the interested market players with the opportunity to discuss the technological problems that are needed to be solved, as well as the positive and negative aspects of every possible solution.⁵⁵ In the situation of standard-setting the technology that is protected by a patent, becomes a commodity, which is indispensable for entering the product market⁵⁶. Such situation may result in issues related to distortion of competition, in particular, abuse of dominant position under Art. 102 TFEU in the form of ‘patent ambush’.

In general, patent ambush occurs when a company, which is a member of an SSO and is participating in the standardization process, hides the fact that it holds essential IPRs over specific aspects of the standard, which is being developed.⁵⁷ In those situations, where the standard is covered by IPRs and no competing standards are available, the patent holder is able to acquire market dominant position and, after the standard is set, may assert its IPRs and demand excessive royalties in relation to its patent.⁵⁸ Such a situation, which begins from the deceptive conduct of the owner of SEPs during the standardization, is highly connected to the essential IPR’s disclosure rules of the SSOs.

In perfect circumstances, SSOs would mandate that all participants thoroughly investigate their patent portfolios and disclose all the patents as

54 Drexel (n 11) 210, 216.

55 *ibid* 216.

56 *ibid* 213.

57 Alison Jones, Brenda Sufrin, *EU Competition Law: Text, Cases and Materials* (OUP 2011) 758.

58 Eliza G Petritsi ‘‘The case of Unilateral Patent Ambush under EC Competition Rules’ [2005] 28/1 *World Competition* 25, 26.

well as pending applications that cover the standard technologies.⁵⁹ However, in reality the thorough search of the IPR portfolio is very costly and time consuming and the enforceability of such obligations is hardly possible. Therefore, some members of the SSOs may engage in deceptive conduct by non-disclosing SEPs that they own. This, later, may lead to an infringement of the Art. 102 TFEU.

SSOs usually are not homogenous in terms of their membership and these organizations usually consist of different types of members, whose interests are not necessarily the same. Generally, three different groups of SSOs' members can be distinguished: (i) vertically integrated firms that engage in the development of standardised technology and the implementation of the said technology in products; (ii) firms that engage only in manufacturing and selling in the downstream product market; and (iii) firms that engage exclusively in the development of technology and then sell that technology to manufacturers by licensing their patents.⁶⁰ The latter group of the companies, the so-called pure technology developers, 'are characterised by a very specific incentive structure that may lead to a patent ambush'⁶¹. This type of firms usually are not keen on keeping the prices for licenses low and are likely to act against *bona fide* requirements by acquiring patents on the future standards without informing other SSO members and, later, charge excessive royalty fees for the use of the standard.⁶²

Patent ambush usually consists of two steps. Firstly, a firm, which is participating in standardization process, works out the features of the standard but does not disclose any patents or pending patent applications, which might be relevant for the upcoming standard. In other words, the company deliberately decides not to disclose its IPRs and this way not to reduce the possibility for its technology to become a standard. Once the standard is adopted, the company performs the second step: sues everybody who uses

59 Joseph Farrel, John Hayes, Carl Shapiro and Theresa Sullivan "Standard Setting, Patents, and Hold-Up: A Troublesome Mix" [2007] 74 Antitrust Law Journal 603, 603.

60 Drexel (n 11) 217.

61 Drexel (n 11) 217.

62 Drexel (n 11) 217-218.

the afore-specified standard, unless the defendants agree to pay excessive royalty rates.⁶³

The competitors, who are using the standard, to which an entire industry has become economically committed, or locked in,⁶⁴ by the time when they get sued, have already made substantial investments in implementing this standard technology, and most likely will agree to pay excessive royalties to use it further. Such situation distorts competition and, according to Art. 102 TFEU, may constitute an abuse of dominant position in the market.

An example, of a patent ambush is the *Rambus* case⁶⁵, which could be regarded as a ground-breaking event that encouraged a deeper analysis of the interrelation between competition law, standardization, and IPRs. In this case, which was investigated by the Commission between 2005 and 2009, Rambus, a technology company based in the United States of America participated in a standard-setting process conducted by Joint Electron Device Engineering Council (JEDEC) for computer chips and did not disclose relevant IPRs. At the time when JEDEC was adopting the standard for Dynamic Random Access Memory (DRAM), Rambus was a member of this SSO. However, after this standard was adopted, the company left JEDEC. When DRAM standard became generally accepted by the industry in 1999, Rambus began enforcing its patents against companies using DRAM technology and claimed high royalty rates. This raised the question whether such actions of Rambus are legitimate.

After conducting the investigation of the afore-specified circumstances, Commission sent Rambus a Statement of Objections indicating that the latter allegedly abused its dominant position, i.e. infringed the Art. 102 TFEU, by failing to disclose relevant IPRs during the standardization process and later claiming unreasonable licensing royalties.⁶⁶ According to the preliminary view of the Commission, if Rambus had not disguised its relevant patents, JEDEC could have possibly used another technology and

63 Andreas Fuchs “Patent Ambush Strategies and Art. 102 TFEU” in Josef Drexl, Warren S. Grimes, Clifford A. Jones (eds), *More Common Ground for International Competition Law?* (Edward Elgar Publishing 2011) 177, 179.

64 Tallman (n 15) 36.

65 *Rambus* (Case COMP/38.636) Commission Decision COMP/38.636 [2009] OJ 2010 C30/17.

66 Commission, Press Release ‘Commission confirms sending a Statement of Objections to Rambus’ MEMO/07/330.

Rambus would have not been able to negotiate similar high licence fees.⁶⁷ In response to the afore-specified Statement of Objections, Rambus proposed commitments addressing the competition law issues raised by the Commission.⁶⁸

After analysing the proposed commitments and investigating the circumstances, in its decision as of 9 December 2009 the Commission considered that Rambus while being a member of JEDEC between 1991 and 1996 was well informed about the events taking place in the afore-specified SSO and the expectations of its other members.⁶⁹ Thus, the Commission stated: ‘Rambus may have engaged in intentional deceptive conduct in the context of standard-setting process by not disclosing the existence of the patents and patent applications which it later claimed were relevant to the standard.’⁷⁰ The Commission took the preliminary view that Rambus has been abusing its dominant position by claiming royalties for the use of its patents from JEDEC-compliant DRAM manufacturers at a level which, absent its allegedly intentional deceptive conduct, it would have not been able to charge.⁷¹ In addition, in this decision it was also provisionally stated, that with regard to Rambus’s possible intentional breach of the JEDEC’s IPR policy and the duty of good faith, claiming the afore-specified royalties would have been incompatible with Art. 102 TFEU.⁷² Although Commission preliminary found Rambus’s behaviour to be abusive, i.e. excessive pricing, the case did not end with Commission fining Rambus. Eventually the Commission adopted a so-called ‘Art. 9 settlement’ decision whereby it held legally binding the commitments offered by Rambus, that, in particular, limited the licensing fees that Rambus could charge for certain patents that are essential to JEDEC’s standard.⁷³ One of the reasons why a commitment decision was used in this case, could be the difficult application of the Art. 102 TFEU to patent ambush situations. In the light of the current EU competition law it is not easy to qualify patent ambush as an abuse of dominant position. The deceptive conduct, which has been performed by Rambus during the standardization

67 *ibid.*

68 Proposed Commitment of Rambus Inc. Case C-3/38.636 (8 June 2009) <http://ec.europa.eu/competition/antitrust/cases/dec_docs/38636/38636_1003_5.pdf> accessed 11 March 2014.

69 *Rambus* (n 65) para 41.

70 *Rambus* (n 65) para 26.

71 *Rambus* (n 65) para 28.

72 *Rambus* (n 65) para 28.

73 Sattler (n 10) 347.

proceedings, is able to fall under Art. 102 TFEU only when a firm is in a dominant position. Thus, this provision does not seem directly suitable for tackling the manipulations that arise during the standardization process, at least while an IPR owner deliberately not disclosing its IPRs is not in a dominant position.⁷⁴ At the moment of non-disclosing the relevant patents, Rambus was not in the afore-specified position. For this reason, in the Statement of Objections the Commission alleged, that Rambus was involved not in exclusionary, but in exploitative practices, i.e. was requesting excessively high royalty rates, that were not related to the economic value of the product supplied.⁷⁵

Due to the requirement of dominant position for the application of Art. 102 TFEU, this was the only option trying to hold Rambus liable. Indeed, at the time of non-disclosing patents, Rambus did not have a market dominant position, thus, Rambus's deceptive conduct during Standardization did not qualify as an abuse. For this reason, the Commission had to focus on the excessive royalty rates as an abuse of dominant position.⁷⁶ However, the Commission mentioned that the deceptive conduct of Rambus during the standard-setting, is the reason for such intervention to regulate royalty rates.⁷⁷ This shows that the Commission had to use the available EU competition law instruments quite creatively, in order to address such a standardization-related issue.

Taking into consideration the case specified-above, it is possible to conclude, that, in order to prevent legal issues in the post-standardization stage, actions should be taken already in the procedure of standard-setting. Therefore, there are proposals regarding the amendment of the SSO IPR policies, in particular, by introducing *ex ante* disclosure of licensing terms. The question, whether it is useful to implement them, will be discussed in the following chapters of this work (part IV.A).

74 Fuchs (n 63) 181.

75 Case 27/76 *United Brands v Commission* [1978] ECR 207, para 250. The author of this work is aware, that the price control by the competition authorities is a complex issue, however, due to the length of this work, this problem will not be further elaborated.

76 Thomas De Meese “European Commission Accepts Commitments from Rambus in ‘Patent Ambush’ Case” [2010] 1 (3) *Journal of European Competition Law and Practice* 215, 216.

77 *Rambus* (n 65) paras 28-29.

B. Injunctive Relief in the Light of FRAND Commitment

Besides the afore-specified situation related to the abuse of the procedure of standardization, the question, whether an attempt by a FRAND-encumbered SEP owner to claim injunctive relief constitutes an abuse of dominant position under Art. 102 TFEU also remains unclear. Generally, the right to exclude and the right to seek and obtain an injunction against an infringer are regarded to be essential rights of IPR holder designed to protect its incentive to innovate and to deter infringements of its exclusive rights.⁷⁸ However, there are voices stating, that FRAND commitments should be interpreted as limiting the right of FRAND-committed SEP owners to seek injunctive relief against the users of SEPs.⁷⁹

Lacking clear guidance from the EU institutions on the afore-specified issue, for some time, national courts of EU member states were left to make their own decisions, which were varying. In FRAND-related litigation cases, the District Court of The Hague refused to apply injunctive relief and prevent Apple's sales of iPhones and iPads in the Netherlands,⁸⁰ because, according to the court, seeking such an injunction would breach the FRAND obligation and would constitute an abuse of power or breach of pre-contractual good faith.⁸¹ The courts have acted similarly in Italy and France in the cases *IPCom v. Nokia*⁸², and also the High Court of England and Wales in the proceedings between the afore-specified parties rejected the claims for an injunctive relief in the United Kingdom⁸³.

However, in Germany it have been held, that German law requires the grant of an injunction to a patent holder, whose patent is found to have been infringed, unless specific circumstances occur.⁸⁴ An exception to such a situation was the *Orange Book Standard*⁸⁵ case, where the German Federal Supreme Court held, that claim of an injunction, even absent of

78 Jones (n 57) 17.

79 Michael Fröhlich “The smartphone patent wars saga: availability of injunctive relief for standard essential patents” [2014] 9 (2) Journal of Intellectual Property Law and Practice 156, 156.

80 *Samsung Electronics Co. Ltd/Apple Inc.* D.C. Hague March 14 2012 Dkt. Nos. 400367 / HA ZA 11-2212, 400376 / HA ZA 11-2213, 400385 / HA ZA. 11-2215.

81 *ibid.*

82 Jones (n 57) 10.

83 *ibid* 10.

84 Jones (n 57) 11.

85 BGH, GRUR 2009, 694 – Orange Book Standard.

formal FRAND commitment, constitutes an abuse of dominant position, if the potential licensee made a binding, unconditional offer to conclude a license on terms, which cannot be rejected by the patentee without infringing competition law, and on the condition, that the potential licensee behaves as if licensed. However, in the aftermath of this decision, the FRAND defence succeeded in only few cases before the courts of Germany.⁸⁶

Despite the lack of clarity from the CJEU, specific movements towards more answers to such a complicated situation are, nevertheless, visible. In 2014, two decisions were adopted by the Commission in *Samsung*⁸⁷ and *Motorola*⁸⁸ cases regarding the availability of injunctive relief on the user of SEPs. In the afore-specified decisions the Commission stated, that, although, in general, the IPR holder has the right to claim injunctive relief, in order to protect its IPRs⁸⁹, such a recourse of the SEP owner may be regarded as an abuse of dominant position, where: (i) the SEP owner has voluntarily committed to license its essential patent on FRAND terms and (ii) where the licensee is willing to take a licence on such terms.⁹⁰ Concerning the licensee's 'willingness', the Commission stated that it intends for these decisions to provide a 'safe harbour' for all potential licensees of SEPs that submit to the Licensing Framework⁹¹ provided by the commitments.⁹²

However, it is claimed, that these decisions do not create a corresponding 'safe harbour' for the SEP holder or a presumption of unwillingness on the licensee's part⁹³: 'A potential licensee can also choose not to sign up to the Licensing Framework. In such a case, the potential licensee cannot be automatically regarded as unwilling to enter into a licence agreement on

86 Fröhlich (n 78) 158.

87 *Samsung Enforcement of UMTS standard essential patents* (Case AT.39939) Commission Decision AT.39939 [2014].

88 *Motorola - Enforcement of GPRS standard essential patents* (Case AT.39985) Commission Decision AT.39985 [2014].

89 *Motorola* (n 86), para 492.

90 *ibid* paras 492-495; *Samsung* (n 85), para 65-69.

91 According to Samsung decision, Licensing Framework is a certain licensing framework for the determination of FRAND terms and conditions (*Samsung* para 77).

92 *Samsung* (n 85), para 122.

93 Miguel Rato, European Union (*Global Competition Review*, 28 May 2014) <<http://globalcompetitionreview.com/know-how/topics/80/jurisdictions/10/european-union/>> accessed 12 August 2014.

FRAND terms and conditions.⁹⁴ The Commission claims, that in such a situation, the dispute resolution body while granting the injunction will need to evaluate all the circumstances and decide whether the licensee is willing to enter into a license agreement on FRAND terms.⁹⁵ Therefore, legal uncertainty remains for SEP owners seeking to enforce their rights against implementers who do not agree to a licensing framework advanced by the decision in the *Samsung* case.⁹⁶

The afore-specified cases reveal a different approach of the Commission from the EU case law regarding the fundamental right of access to the courts and the right to an effective remedy. In particular, in the case *ITT Promedia*⁹⁷, which later was confirmed by the case *Protégé International*⁹⁸, it was provided, that bringing legal proceedings may only be qualified as an abuse of dominance in ‘wholly exceptional circumstances’⁹⁹. However, with regard to the *Samsung* and *Motorola* decisions, it is possible to claim, that this time the Commission has applied a lower standard than in the *ITT Promedia* case while deciding that the seeking of an injunction in SEP and FRAND-related cases, where there is a willing licensee, constitutes an abuse of dominant position.

With regard to all the specified above, it is possible to claim, that now there seems to be a fairly broad consensus that owners of SEPs should abide by their FRAND commitments and refrain from obtaining injunctive relief against willing licensees.¹⁰⁰ In addition, the CJEU in *Huawei* case will verify, whether the EU competition law supports the afore-described approach of the Commission.¹⁰¹

With regard to all the specified above, it is possible to claim, that EU competition law is shifting towards the idea, that an application for an in-

94 *Samsung* (n 85), para 123.

95 *ibid*, para 123.

96 *ibid*, para 123.

97 T-111/96 *ITT Promedia v Commission* [1998] ECR II-02937.

98 T-119/09 *Protégé International v Commission* [2012] ECR II-0000.

99 *ITT Promedia* (n 95), para 60.

100 Jonathan Kanter, ‘What a Difference a Year Makes: and Emerging Consensus on the Treatment of Standard-Essential Patents’ (*CPI Antitrust Chronicle*, 15 October 2013) <<https://www.competitionpolicyinternational.com/what-a-difference-a-year-makes-an-emerging-consensus-on-the-treatment-of-standard-essential-patents/>> accessed 19 August 2014.

101 Request for a preliminary ruling from the Landgericht Düsseldorf C-170/13 *Huawei Technologies Co. Ltd v ZTE Corp., ZTE Deutschland GmbH*.

junctional relief in SEP-related litigation, may constitute an abuse of a dominant position, at least, in the circumstances, where the licensee is willing to obtain a license from the FRAND-encumbered SEP owner. Such approach raises the importance of FRAND commitment, which is a very broad legal concept, and depends on the evaluation of all the circumstances of each case.¹⁰²

The afore-specified approach, reveals an attempt to keep the balance between the FRAND-committed SEP owners and the implementers in the context of claiming a preliminary injunction. However, still it does not provide with a clear benchmark on the availability of the injunctive relief in SEP and FRAND-related disputes, because it does not provide with any further guidance as to what exactly makes the implementer a willing licensee with regard to the SEP owner,¹⁰³ and, of course, relies on the abstract concept of FRAND.

In addition, it is possible to claim, that such a position regarding the availability of injunctive relief arises from the differences between the regular patents and SEPs. Regular patent confers monopoly power on its owner with regard to specific technology, whereas, standardization and implementation of the standard into a specific industry, is able to turn this monopoly over a specific technology into a dominant position over the whole market, and that could lead to restraints of undistorted competition. For this reason, there should be only special circumstances, when an injunction based on SEPs can be justifiable and this calls for balancing the rights of the owners and users of SEPs while taking into consideration the patent law and competition law policies.

With regard to that, the incentives-balance approach, which has been proposed in legal literature¹⁰⁴ may be appropriate for the evaluation of the afore-specified situations. This approach in the context of an injunctive relief in SEP and FRAND-related disputes would point out that while considering the availability of the injunctive relief in such circumstances, the court or any other dispute resolution body would need to balance the pro-innovation incentives of patent protection, which generally involve the ability of the patent owner to prohibit third parties from using its patent, with the anti-innovation incentives that would emerge, if the injunctive

102 Samsung (n 85), paras 122-123.

103 Alexandros S Zografos “The SEP Holder's Guide to the Antitrust Galaxy: FRAND and Injunctions” [2014] 37 (1) World Competition 53, 55.

104 Drexel (n 11) 222.

relief to FRAND-encumbered SEPs was allowed. In other words, the follow-on innovation within the standard, which is performed by the users of the SEPs, would be weighted with potential negative incentives for the owner of SEP to invest in innovation if it had no possibility to obtain an injunctive relief for the SEP.¹⁰⁵

In conclusion, it should be stated, that, due to the importance of the concepts of ‘FRAND’ and ‘willing licensee’ in the afore-specified cases, while applying injunctive relief on the implementers or users of SEPs, the decision-making body should be well aware of not only all legal, but also all the technical and commercial aspects of the standard. This proves a need to evaluate specific circumstances in each and every SEP licensing dispute and calls for the establishment of the dispute resolution bodies, which would have not only technical, but also legal and economic expertise. Therefore, a decision of an entity with relevant knowledge and expertise should be regarded as necessary while solving SEP, FRAND and injunctive relief-related disputes.

C. FRAND Commitment in the Standardization and the Implementation of the Standard

One of the most common requirements imposed on the SEP owners by SSO IPR policies is an obligation to license these essential IPRs on FRAND terms. In general, such commitment is designed to ensure that the essential technology, which is protected by IPRs and incorporated in a standard, would be accessible to the users of that standard and that a balance between the interests of SEP owners and users would be achieved.¹⁰⁶ With regard to the above-described aspects, it is possible to claim, that FRAND concept has gained importance while adjudicating on the licensing conditions in SEP-related cases.

Despite the extensive use of FRAND commitments, no definition explaining the content of this legal category exists. FRAND commitment does not

105 This approach applied, according to the proposal of Josef Drexl ‘‘Intellectual Property in Competition: How to Promote Dynamic Competition as a Goal’’ in Josef Drexl, Warren S. Grimes, Clifford A. Jones (eds), *More Common Ground for International Competition Law?* (Edward Elgar Publishing 2011) 210-229.

106 Claudia Tapia, ‘Industrial property rights, technical standards and licensing practices (FRAND) in the telecommunications industry’ (DPhil thesis, Augsburg University 2010) 15 (as cited in Goldstein/Kearsey 2004, 26).

specify the licensing terms that must be agreed upon. Rather, it provides that SEP owners will negotiate with each user seeking a SEP license with regard to the commercial conditions specific to their relationship that best reflects 'each party's commercial priorities, with both parties having the duty to do so in good faith'.¹⁰⁷

Despite its positive aims, the concept of FRAND has been criticized stating, that it does not provide SEP users with an access to the technology, which they could effectively implement in the market. It is claimed, that FRAND-based IPR policies are ineffective or inadequate and this threatens the effectiveness of FRAND commitments.¹⁰⁸ In addition, the criteria of how to delimit FRAND are also non-existent and there are still uncertainties while applying an injunctive relief in the context of FRAND commitment.¹⁰⁹

In addition, the vague language of FRAND concept is regarded as impracticable when a member of SSO tries to negotiate with the SEP owner over the appropriate FRAND licensing terms. Due to the fact, that the SEP holder enjoys broad control over the access of a new industry standard, individual SSO members encounter unreasonably high prices for patent licenses.¹¹⁰ This usually results in long and complicated litigation before the courts, where the SEP owner alleges patent infringement by requesting injunctive relief, and the potential licensee claims competition law infringement.

In spite of the afore-specified critique towards the concept of FRAND, it should be pointed out, that, taking into consideration the complexity of the standardization process, it is not possible to achieve an all-encompassing definition of this concept, because FRAND is not necessarily the same for all companies and for all the SEPs related to one concrete standard.¹¹¹ Therefore, while answering what is FRAND, it should always be kept in mind, that the answer is based on factual considerations in many respects.

107 Larouche, Padilla and Taffnet (n 33) 3.

108 Larouche, Padilla and Taffnet (n 33) 4 (as cited in: George S. Cary, *et al.*, The Case for Antitrust Law to Police the Patent Holdup Problem in Standard Setting, 77, ANTITRUST L.J. 801, 908 (2011); Mark A. Lemley & Carl Shapiro, Patent Holdup and Royalty Stacking, 85 TEX. L. REV. 1991, 1992-93 (2007)).

109 Request for a preliminary ruling (n 99).

110 Patrick D Curran "Standard-Setting Organizations: Patents, Price Fixing, and Per Se Legality" [2003] 70 The University of Chicago Law Review 983, 993.

111 John Temple Lang "Patent pools and agreements on standards" [2011] 36 (6) European Law Review 887, 892.

The concept of FRAND can be determined only on the basis of case-by-case. Indeed, the FRAND commitment should be regarded as a unified system allowing to determine the licensing terms of SEPs in different fields of technology and in the context of diverse factual and legal situations. In other words, the open-ended terms of FRAND provides the dispute resolution subjects to adapt to a specific situation by maintaining a certain, although abstract, level of legal certainty for the parties at stake. In this context it should be advocated for FRAND-related disputes to be solved by entities, which have not only legal, but also technical and economic knowledge.

In addition, it should be pointed out, that in the context of rapidly developing and complicated technologies, which require individual approach, different types of participants in the standardization process and their diverging interests, the whole standardization system should have at least one common denominator. Still, due to the afore-specified variety in the standardization process, achieving something more detailed than FRAND is hardly possible. With regard to that, the open-endedness of the meaning of FRAND should not be perceived as a drawback. Rather, the absence of a precise definition helps to achieve one of the main aims of the standardization, i.e. to ensure the widest availability of the technology embodied in the standard in the widest possible variety of technical, commercial and legal circumstances.¹¹²

In conclusion, it is possible to state, that the unrestricted terms of FRAND helps both sides, while determining the licensing terms of SEPs, to adapt to a particular situation but at the same time maintain a specific level of legal certainty. The high level of abstractness of the FRAND concept leads to disputes between the parties, however, taking into consideration the diverging interests of different types of participants in the standard-setting procedures and the complexity of technologies, FRAND should be regarded as the most suitable mean setting the limitations on the licensing conditions of SEPs as well as providing the necessary margin of flexibility.

112 Geradin and Rato (n 50) 112.

IV. The Role of SSOs while Improving the Access to SEPs

Taking into consideration the afore-discussed new situations that arise in the context of standardization, e.g. patent ambush, broad meaning of FRAND commitment and the fact that SEP-related litigation highly depends on the proper evaluation of a number of legal, technical and economic aspects, in the recent years, there have been a number of proposals, which are designed to prevent SEP owners to engage in patent ambush and to maintain a level of royalties on a reasonable level.¹¹³ In general, when discussing the improvement of the royalty rate setting system of SEPs and the avoidance of extensive litigation, two types of solutions may be analysed: (i) *ex ante* disclosure or establishment of royalty rates or even licensing terms before the standard is set; (ii) *ex post* establishment of licensing terms of SEPs by dispute resolution bodies within SSOs or by a separate arbitral tribunal. Both proposals will be discussed in the following parts of this work.

A. The Obligation of Ex Ante Disclosure in the IPRs Policies

Under the existing systems of a large number of SSOs, the royalty rates of SEP's licenses are determined only after the proprietary technology is set as an industry standard. However, given the incredible market power that a SEP is able to confer on its owners, the latter have every incentive to offer licenses at anticompetitive prices or establish other conditions, which may negatively affect the users of SEPs. This conduct may lead to restraints of undistorted competition. With regard to that, it is claimed, that the current system leaves individual SEP users in an uneven bargaining position against a SEP owner, who has a complete control over the user's ability to participate in the product market.¹¹⁴

113 Damien Geradin, 'Standardization and Technological Innovation: Some Reflections on ex ante Licensing, FRAND, and the proper means to reward innovators' (Intellectual Property and Competition Law Conference, Brussels, June 2006) <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=909011> accessed 19 August 2014.

114 Curran (n 108) 1007.

The afore-specified situations, as it was previously stated, usually end up before the courts. In order to avoid such a litigation, there are proposals of establishing a system of mandatory *ex ante* disclosure of licensing fees.¹¹⁵ The proposals regarding a mandatory *ex ante* disclosure vary: some propose a disclosure of the licensing terms before the standard is adopted, others speak about the disclosure of the most restrictive licensing terms or maximum royalty rates, whereas, some even propose the joint negotiations between potential licensors and licensees of SEP royalty rates before the standard is formally adopted.¹¹⁶

In general, the afore-indicated mandatory *ex ante* disclosures refer to a situation where a patent owner, at an early stage of the standard-setting process, makes binding commitments on the royalty fee or other conditions it is going to use in the licensing agreement after the standard is set. In principle, such disclosure could help to take informed decisions on whether or not to include patented technology in a standard, as well as help users of the technology in their licensing negotiations, because certain limits of licensing terms, e.g. the maximum royalty rate, would already be set. Moreover, it is stated, that, for example, maximum licensing fee disclosure would restrain the licensing demands of the IPR owners, because by such an *ex ante* disclosure they are able to increase the possibility of their technology being implemented into a standard.¹¹⁷ However, a mandatory *ex ante* royalty rate determination may have some drawbacks.

It is claimed, that these proposals ignore various constraints which are faced by the companies holding the SEPs when setting the royalty rates. The indicated constraints are the following: '(i) horizontal constraints from the royalty rates set by the holders of complimentary patents, (ii) vertical constraints due to the impact of an increased royalty rate on downstream activity, and (iii) institutional constraints associated with the standardization process which tends to penalise in subsequent iterations of the selection process those patent holders who behaved opportunistically in the past'.¹¹⁸ Depending on which type of the afore-specified subjects or situations the SEP owner is dealing with, it may adjust the royalty rate of

115 E.g. Standard-Setting, Competition Law and the Ex Ante Debate, Cisco Systems, Presentation to ETSI SOS (Interoperability III Meeting, Sofia Antipolis, February 2006) <<http://www.etsi.org/images/files/SOSInteroperability/SOSinteropIIpresentation3-02.pdf?>> accessed 19 August 2014.

116 Geradin (n 111) 2.

117 Bekkers and Updegrove (n 22) 139.

118 Geradin (n 111) 5.

A. The Obligation of Ex Ante Disclosure in the IPRs Policies

the SEP in accordance to the circumstances. However, in the situation of mandatory *ex ante* disclosure, such adjustment becomes less possible.

In addition, the mandatory *ex ante* disclosure leads to ‘one size fits all’ solutions, which homogenize licensing conditions and also distort the way standards’ development fosters competition between and amongst implementing standards participants.¹¹⁹ In the absence of mandatory disclosure, the standard implementers make different strategic choices, thus, such system of disclosure would eliminate the freedom of SEP owners and users to negotiate different licensing terms, according to specific situation. With regard to that, it should be mentioned, that such a restriction on the royalties that would be charged by innovators comes at a cost: ‘by limiting the returns to innovators, such limitations discourage investment and stifles the innovation process’.¹²⁰

Furthermore, such mandatory *ex ante* disclosure could be regarded as an obligation to set the royalty rates in vacuum, i.e. without having the possibility to take all the important elements into account. The fact that SEP royalty rates depend on a number of factors could be illustrated by court decisions. For example, in the case *Georgia-Pacific v. United States Plywood*¹²¹ the ‘simulating market’ factors which are important in determining the SEP royalty rate were stated out. This case illustrates, that SEP royalty rate determination is a matter of case by case judgement highly dependent on the technical, economic and legal circumstances of every single situation. Therefore, mandatory *ex ante* royalty rate disclosure may restrict the freedom of the parties to negotiate and may obstruct their opportunities to achieve economically satisfactory results.

Additionally, with regard to the proposal of the joint *ex ante* negotiations of royalty rates, it should be specifically mentioned, that such actions may trigger Art. 101 (1) TFEU as it would be regarded as creating restrictions on competition because such a negotiation may be regarded as illegal collaborations between the companies. Due to the afore-specified competition law concerns, mandatory *ex ante* disclosure is proposed as a less risky option. However, although the risk of infringing competition law is markedly lower than that arising from joint negotiations, still the mandatory *ex ante*

119 *ibid* 6.

120 *ibid* 3.

121 *Georgia-Pac. Corp. v. U.S. Plywood Corp.* 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970) modified and aff’d 446 F.2d 295 (2d Cir. 1971) cert. denied 404 U.S. 870 (1971), para 1120.

disclosure has potential to fall under Art. 101 (1) TFEU. Such situation explains why, for example, ETSI has a system of voluntary *ex ante* disclosure of the most restrictive licensing terms.¹²² With regard to the afore-specified competition law issues, ETSI in its IPR policy indicates, that voluntary *ex ante* disclosure of licensing terms is ‘not prohibited’ and, if such disclosures would happen, they would be used to reveal the technical features of the technology and would help to make informed choices over the standardized technology in the standardization process.¹²³

With regard to all the specified above, it is possible to state, that the afore-discussed mandatory *ex ante* disclosure may obstruct the process of standardization and implementation of the standard into the industry as well as diminish the incentives of the parties to innovate and participate in the standard-setting. In addition, according to the EU competition law, *ex ante* disclosure is acceptable under current EU competition law, if it is not binding. However, although SSOs, such as, ETSI, implemented policies that allowed participants to voluntarily disclose their most restrictive licensing terms, SSOs’ members have shown a general resistance to make such disclosures.¹²⁴ This situation leads to the conclusion that SEP royalty rates would likely to be determined after the standard is set. This calls for a discussion over the role of SSOs and their IPR policies in the post-standardization procedures.

B. The Role of SSOs in the Post-Standardization Stage

The idea, that SSOs should be more active in standard-setting procedures in general, is not a new one. Even the Commission prefers actions of the

122 Bekkers and Updegrove (n 22) 141.

123 European Telecommunications Standards Institute Intellectual Property Rights Guide 19 September 2013, s 4.1.

124 Urška Petrovčič, *Competition Law and Standard Essential Patents: A Transatlantic Perspective* (Kluwer Law International 2014) 3, 175 (as cited in J. Contreras, An Empirical Study of the Effects of Ex Ante Licensing Disclosure Policies on the Development of Voluntary Technical Standards (National Institute of Standards and Technology, June 2011), available at: <http://gsi.nist.gov/global/docs/pubs/NISTGCR_11_934.pdf>).

SSOs¹²⁵ over its own intervention, when it comes to any possible competition law concerns involved in standard-setting. It is claimed, that such an approach ‘is a consequence of lack of technical expertise, lack of resources and the long lead-time of the Commission’s procedures.’¹²⁶ Similar view could also be applied to the courts, when they are in the position of solving SEP and FRAND-related issues that require not only legal but also technical and economic knowledge.

According to the Guidelines, in order to determine, what FRAND is, the main question to be answered is whether the fees bear a reasonable relationship to the value of the IPR.¹²⁷ This means, that it is possible to evaluate the IPR by taking into consideration all the technical, commercial and legal aspects related to a specific technology. This is usually possible after the standard is set. With regard to that, it becomes important to search for ways of solving SEP and FRAND-related disputes, which arise while setting the royalty rates in the post-standardization stage. SSOs and their IPR policies in this case may play an important role.

It is advocated that SSOs should set up some means of dispute resolution within the organization to help resolve SEP royalty disagreements.¹²⁸ In addition, other proposal is that SSOs IPR policies should be modified in such a way, that SEP owners making a FRAND commitment, in the event that they cannot reach an agreement on the licencing terms with potential licensees, submit the dispute to an arbitration tribunal.¹²⁹

In general, the disputes to be submitted to a dispute resolution body, which should be regarded as an alternative to court proceedings, are those, that cover whether a member of SSO, which is the owner of SEP, has offered a license for SEP on FRAND conditions. It should be clarified, that the main idea is *not*, that the courts cannot be viewed as the possible recourse to which the parties to the dispute arising from the standardization are able to refer. Rather, in this work it is stated, that the claimant might be better off turning to a SEP-specialized dispute resolution body, which

125 Magdalena Brenning, ‘Competition & Intellectual Property Policy Implications of Late or No IPR Disclosure in Collective Standard-Setting’ (American Bar Association’s International Roundtable on International Standards, Brussels, June 2002) <http://ec.europa.eu/competition/speeches/text/sp2002_037_en.pdf> accessed 21 August 2014.

126 *ibid.*

127 Guidelines (n 21) para 289.

128 Lemley (n 13) 1966.

129 Larouche, Padilla and Taffnet (n 33) 17.

would solve the dispute faster than an average court by using its technical, legal and economic knowledge.

The idea of such dispute resolution mechanisms is not a new one. The representatives of Commission mentioned the establishment of arbitration mechanism already in 2002.¹³⁰ The afore-specified arbitration idea survived until the recent years on both sides of the Atlantic: in 2013, US Federal Trade Commission, US Department of Justice and the Commission have suggested changes to the IPR policies of SSOs, which covered the inclusion of arbitration as a process to solve SEP-related disputes.¹³¹

It is claimed, that at the moment, there is also some movement taking place in ETSI. This SSO is trying to amend its IPR policy in the light of regulatory guidance of Commission.¹³² One of the matters to consider while reviewing the IPR policy of the latter organization is arbitration, which might be advanced by a cooperation with World Intellectual Property Organization Arbitration and Mediation Center (WIPO Center).¹³³

In addition, according to the Summary Report of International Association for the Protection of Intellectual Property, the majority of the questioned countries are in favour of internal arbitration proceedings prior to involving of courts, due to the two main advantages: (i) the possibility of involving specialists in the respective technical field and (ii) lower costs and greater efficiency.¹³⁴

However, despite the afore-specified developments, there is no common view among the countries as to how the royalties should finally be determined.¹³⁵ In addition, besides quite extensive discussions, so far there is no guidance for the parties, SSOs and potential tribunals that wish to implement effective arbitration procedures for disputes regarding SEPs.¹³⁶ However, at this stage of the development of the dispute resolution bodies for SEPs, it is important to have at least preliminary view on the suggested

130 Brenning (n 123).

131 Carter Eltzroth ‘‘Arbitration of Intellectual Property Disputes’’ [2014] 1 (19) Arbitration News: Newsletter of the International Bar Association Legal Practice Division, 86.

132 Contreras and Newman (n 7) 9.

133 Eltzroth (n 129) 87.

134 International Association for the Protection of Intellectual Property Summary Report (Executive Committee Meeting in Lisbon, Portugal, June 2002) 7-8.

135 Summary Report (n 132) 10.

136 Contreras and Newman (n 7) 1.

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dispute resolution procedures and to be able to identify areas that need the most attention. In addition, it should be pointed out, that the IPR policies of SSOs may play an important role regarding this question.

While discussing the establishment of dispute resolution bodies for SEP and FRAND-related disputes, one of the proposals is that there could be (i) dispute resolution bodies established within the SSOs and having experts of certain fields to make the decisions, whereas the other suggestion would be (ii) referring the dispute to a separate arbitration tribunal, where it would also be heard by the experts of a specific sphere, which is relevant to that dispute. Both dispute resolution options would be mandated to the parties to the dispute by the IPR policy of a relevant SSO. The afore-specified IPR policy would state, that all the disputes among the members would be solved by one of the afore-mentioned dispute resolution bodies.

With regard to the former option, such SEP and FRAND-related dispute resolution bodies attached to SSOs, that have the relevant industry-specific expertise, could be regarded as being in the best position to set the licencing conditions of SEPs. However, it should be pointed out, that such dispute resolution bodies within the SSOs, would possibly have institutional issues. As it was stated before, SSOs usually consist of different types of rightholders¹³⁷ and, thus, some of the members are more influential than the others.¹³⁸ Such close contact between the standard-setting actions of SSO and the dispute resolution body within the same organization may turn the whole dispute resolution procedure more favourable for one of the parties.

In the Guidelines it is stated, that activities of SSOs are subject to EU competition law,¹³⁹ thus, such dispute resolution body, which is acting within the SSO, should be assessed from the perspective of the EU competition law. In general, under specific circumstances, standard-setting and IPRs' licensing policies may result in anticompetitive agreements or abuse of dominance, which, accordingly, would infringe Art. 101 or Art. 102 TFEU. Similar risk applies to the proposed dispute resolution body within SSOs.

137 Drexel (n 11) 217.

138 Seo "Analysis of Various Structures of Standards Setting Organizations (SSOs) that Impact Tension among Members" [2013] 11 (2) International Journal of IT Standards and Standardization Research 46, 52.

139 Guidelines (n 21) para 258.

In the Guidelines, it is established, that ‘where participation in standard-setting is unrestricted and the procedure for adopting the standard in question is transparent, standardization agreements which contain no obligation to comply with the standard and provide access to the standard on fair, reasonable and non-discriminatory terms will normally not restrict competition within the meaning of Article 101(1).’¹⁴⁰ In this context, the requirement of transparency means, that a SSO needs to have procedures which allow stakeholders to effectively inform themselves of upcoming, on-going and finalized standardization work ‘in good time at each stage of the development of the standard’.¹⁴¹ However, the discussed dispute resolution body within the SSO, which would be closely related to the standardization actions, may trigger the requirement of the transparency of the standardization procedure and, thus, may infringe the Art. 101 TFEU. Similar transparency-related concerns were raised in the *Samsung* case, where the interest third parties in their observations gave preference to the court as a ‘more transparent venue for determining FRAND terms and conditions’¹⁴² instead of an arbitration tribunal.

With regard to the afore-specified, it is possible to claim, that if the royalty rates and other licensing conditions will be determined within the SSO, this may cause situations, which would be able to infringe Art. 101 (1) TFEU. The afore-specified article states, that ‘all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market’ shall be prohibited as incompatible with the internal market.¹⁴³ It is claimed, that in some SSOs there could be a disproportion between the interests of the users and the interests of the IPR holders.¹⁴⁴ In addition, specific groups of SSO members may have more influence on the decision-making than the others. For instance, the participants of the Internet Engineering Task Force have pointed out, that alt-

140 *ibid* para 280.

141 *ibid* para 282.

142 *Samsung* (n 85), para 83.

143 Treaty (n 20).

144 Ginevra Bruzzone and Marco Boccaccio, ‘Standards under EU Competition Law: The Open Issues’ in Giandomato Caggiano, Gabriella Muscolo and Marina Tavassi (eds), *Competition Law and Intellectual Property. The European Perspective* (Wolters Kluwer 2012) 85, 100.

hough every member has the right to get involved, only privileged small groups of insiders have actual influence in the decision-making process.¹⁴⁵ With regard to that, it is clear, that in any SSO there could be groups of members that are more influential than the others. For example, due to their large number, the users of the standard, which conduct their business on the downstream market, could have more influence than the technology developers, which work only on the upstream market. In the event of the dispute regarding the licensing conditions of a SEP between the afore-specified groups, due to the close connection between the standard-setting procedure and dispute resolution proceedings, the more influential group may have improper influence on the final decision regarding the licensing terms. Such situation would be able to amount to a decision by an association of undertakings, which, under the Art. 101 (1) TFEU, distorts competition by price fixing or influencing any other trade conditions.

However, the fact that the standardization process does not conform specific requirements, e.g. transparency, does not constitute, that there is a *per se* infringement of Art. 101 (1) TFEU. In fact, there is a number of factors that should be taken into consideration before reaching this conclusion, such as, market power, incentives of the different parties involved in the agreement and their consequences and etc.¹⁴⁶ The way these factors are evaluated would have an impact on the conclusion whether such way of solving royalty setting disputes infringes the Art. 101 (1) TFEU.

In addition, it should be mentioned, that in the event, that the afore-specified dispute resolution procedure would be held as infringing the Art. 101 (1) TFEU, according to the Art. 101 (2) TFEU, the decisions of such dispute resolution bodies within the SSOs shall be automatically void. This would mean, that the terms and conditions of the licensing of SEP are not established and the dispute regarding these aspects between the SEP owner and the user would just develop deeper, leading to the impediment of further innovation and the implementation of the standard. For this reason, the establishment of dispute resolution bodies should be considered carefully and means for guaranteeing impartiality of such bodies must be adopted.

However, it is also possible, that the afore-described situations may benefit from the application of Art. 101 (3) TFEU, which foresees that restric-

145 Seo (n 136) 52.

146 Bruzzone and Boccaccio (n 143) 85, 104.

tive decisions may bring about objective economic benefits so as to outweigh the negative effects of the restriction of competition.¹⁴⁷ The application of Art. 101 (3) TFEU means that, firstly, the assessment whether a decision of the dispute resolution body of the SSO, which is capable of affecting trade between the Member States, has anti-competitive object or actual or potential anti-competitive effects, should take place, and, secondly, if the afore-specified decision is found to be restrictive of competition, it will be necessary to determine the pro-competitive effects of that decision and balance its anti-competitive effects and pro-competitive effects. The afore-mentioned balancing exercise will be conducted within the framework established by the Art. 101 (3) TFEU.¹⁴⁸

In addition, with regard to the discussed dispute resolution bodies within the SSOs, there could also be an infringement of the Art. 102 TFEU. Although much less expected than the infringement of the Art. 101 TFEU, this is possible in the situation when the innovators, which are acting in the upstream market, are the more influential group in the SSO. In such situation, owners of SEPs are able to inappropriately influence the dispute resolution body and, thus, to indirectly abuse their dominant position, i.e. imposing unfair selling prices or other unfair trading conditions, as it is foreseen in the Art. 102 (a) TFEU.

Generally, the prerequisites of applying Art. 102 TFEU are the following: a) dominant position and b) abusive conduct. According to the CJEU, a ‘dominant position <...> relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, its custom-

147 Commission, ‘Guidelines on the application of Article 81(3) of the Treaty’ OJ C 101, para. 11.

148 The application of this exception under the Art. 101(3) TFEU is subject to four cumulative conditions: (a) the decision must contribute to improving the production or distribution of goods or contribute to promoting technical or economic progress, (b) consumers must receive a fair share of the resulting benefits, (c) the restrictions must be indispensable to the attainment of these objectives, and (d) the agreement must not afford the parties the possibility of eliminating competition in respect of a substantial part of the products in question. When these four cumulative conditions are fulfilled, it is held, that the decision enhances competition within the relevant market, because it leads the undertakings concerned to offer cheaper or better products to consumers, compensating the latter for the adverse effects of the restrictions of competition.

ers and ultimately of the consumers'.¹⁴⁹ The market power is established taking into consideration the following factors: a) definition of the relevant market, on which, as it is stated, is not easy to agree in standardization cases¹⁵⁰; b) showing that the defendant possesses a dominant share of that market; and c) showing that there are significant barriers to entry, so that the seller's price is not constrained by the threat of entry or greater competitive output.¹⁵¹

With regard to the conditions specified above, the most important issue regarding the dominant position requirement in the discussed context, is that at the time when a dispute resolution body affected by other members of a SSO, which own SEPs, is making a decision on the unfair licensing conditions of the afore-specified SEPs, the IPR owner, which is not acting in good faith, is not always in the dominant position. However, in the application of Art. 102 TFEU, the assessment of dominance cannot be skipped even in the presence of a standard and of IPRs essential to the standard.¹⁵²

For this reason, the second necessary condition for applying Art. 102 TFEU, i.e. the abusive conduct, may not be the SEP owner's conduct while influencing the dispute resolution body within SSO to establish licensing conditions beneficiary for that owner, but, most likely, the excessively high royalty rates. According to the CJEU case law, a price is considered to be excessive, when it is not related to the economic value of the product supplied.¹⁵³ However, as it was pointed out, price control is in itself a problem, because it is not clear how to determine the threshold of the price abuses, especially, in the context of IPRs.¹⁵⁴ Still, due to the requirement of dominant position while applying the Art. 102 TFEU, this would be the only way of trying to hold the SEP owner liable. With regard to that, the already mentioned *Rambus*¹⁵⁵ case, could be regarded as a good example, while discussing the liability for the inappropriate influence performed by the SEP holder on the dispute resolution body within an SSO.

149 Case 85/76 *Hoffmann-La Roche v Commission* [1979] ECR 461, para 4.

150 Fuchs (n 63) 187-188.

151 *Image Technical Servs. v Kodak* (9th Cir. 1997), paras 1202-1203.

152 Bruzzone and Boccacio (n 143) 85, 106.

153 Case 27/76 *United Brands v Commission* [1978] ECR 207, para 250.

154 Fuchs (n 63) 182.

155 *Rambus* (n 65).

In this context, it should be claimed, that under EU law, it is not accepted, that royalty rates for patent licenses should be controlled by competition law.¹⁵⁶ This approach is in conformity with the basic ideas of the patent law, which states, that inventor's right to claim any price should be an incentive for further research. Therefore, if competition law would be able to control the royalty rates, it might diminish innovation and development. For this reason, the interference with the IPR owner's right to establish prices, must be strongly substantiated by the objective of protecting competition. Indeed, patent ambush situation where the owner has not been acting according to *bona fide* standards, in order to achieve a market dominant position, is the situation that could justify the control of patent licensing fees.¹⁵⁷ Similarly as the deceptive conduct during the standard-setting in the *Rambus* case, the inappropriate influence on the dispute resolution body within an SSO while making the decisions on SEP licensing conditions, according to Art. 102 TFEU, could also be regarded as an appropriate justification for competition law to interfere and control the licensing fees of SEPs.

Furthermore, besides the afore-specified competition law problems, due to the large heterogeneity of SSOs in different levels,¹⁵⁸ there is also the question whether it would be possible to establish a suitable dispute resolution body for every existing SSO. As it was stated, due to the fact that SSOs vary by their structure, organization and IPR policies, this would lead to a creation of a large number of dispute resolution bodies, and that may lead to more inconsistency and less transparency, when FRAND-related issues arise.

Due to the afore-specified reasons, the establishment and functioning of the afore-described dispute resolution bodies within SSOs does not seem highly encouraging. However, the situation may be improved and this option must not be completely rejected. In general, all the non-transparency and also competition law related issues may be avoided, if the members of the dispute resolution body within the SSOs would be selected in a way that would guarantee impartiality. Such impartiality may be achieved, if, for example, the members of dispute resolution panel would be preselect-

156 Josef Drexel "Anti-Competitive Stumbling Stones on the Way to a Cleaner World: Protecting Competition in Innovation without a Market" [2012] 8 Journal of Competition Law and Economics 507, 553.

157 *ibid* 553.

158 Seo (n 136) 47.

ed by the SSO or that the parties to the dispute would be able to appoint experts from the outside, which are not related to the SSO within which the dispute is going to take place. In addition, the number of the experts of the panel, as, for example, in the arbitration proceedings should be uneven. All these elements, which would provide with more impartiality of the discussed dispute resolution bodies and other important procedural provisions, should be specified in the internal document of an SSO and, according to the IPR Policy of relevant SSO, be binding to its members. Hence, this way, the issues regarding the impartiality of the dispute resolution bodies could be resolved and other important procedural aspects would be foreseen.

In the event that there are issues with regard to dispute resolution bodies within SSOs, referring SEP and FRAND-related disputes to separate arbitration tribunals should be considered as a possible option for solving these types of disputes. Such a real-life example of an arbitration of the disputes related to SEPs could be the Digital Video Broadcasting (DVB) Project, which is a rare example of a SSO that has an IPR policy, which indicates arbitration as the way of dispute resolution.¹⁵⁹ DVB Project is an association of more than 200 members of the digital television broadcasting industry that develops standards for digital television broadcasting.¹⁶⁰ The Memorandum of Understanding of the latter association requires each member to resolve all the disputes regarding to licences of DVB standards under the arbitration rules of the International Chamber of Commerce.¹⁶¹ While considering the resolution of IPR-connected disputes before an arbitral tribunal, the procedure established by the German Law on Employee Inventions (Law on Employee Inventions)¹⁶² should be analysed as a useful example. The Art. 28 of the Law on Employee Inventions foresees that all the disputes between the employer and employee arising of this law is heard by the Arbitration Board. The Art. 29 of the afore-specified law also provides that the Arbitration Board will be established within the German Patent Office.

According to the Art. 30 (1) of the Law on Employee Inventions, the Arbitration Board consists of three members: the chairperson and his alternate and two assessors. In addition, the Art. 30 (2) of this law states, that the

159 Eltzroth (n 129) 88.

160 Contreras and Newman (n 7) 1, 7.

161 DVB's Memorandum of Understanding (3 January 2014), Art. 14.7.

162 Law on Employee Inventions (Gesetz über Arbeitnehmererfindungen), 1957 July 25 (as amended 1994, June 24).

assessors must possess special knowledge in the technical field to which the intervention or technical improvement proposal applies. The Art. 30 (3) of the Law on Employee Inventions foresees, that the afore-specified members of the Arbitration Board are appointed by the President of the German Patent Office.

Such a dispute resolution procedure via arbitration should be considered as suitable option for solving SEP and FRAND-related disputes. Firstly, this procedure is administered by a third body (in this case – by the German Patent Office). This aspect should guarantee the adherence to impartiality requirement. Secondly, the established procedure includes not only a chairperson that possesses the qualifications required for judicial office, which are foreseen in the German law, but also involves the participation of two additional members from a relevant technical field. The latter element allows to evaluate all the necessary legal, technical and economic aspects related to the dispute, which takes place between the employer and the employee.

With regard to the first afore-specified point, for solving the disputes regarding the SEP licensing terms, WIPO Center should be considered as a suitable entity that could conduct such a procedure. At the moment, WIPO Center presents itself as a forum for SEP royalty rate setting disputes and offer to all the interested parties model submission agreements for arbitration related to SEPs and FRAND. As it is stated in the website of the WIPO Center, these model agreements were prepared by taking into account comments made by some members of the World Intellectual Property Organization and the ETSI.¹⁶³

Although the referral of the SEP and FRAND-related disputes to a separate arbitration tribunal raises much less impartiality and potential competition law issues than the establishment of dispute resolution body within the SSO, both of the presented ways of dispute resolution may cause some additional aspects that require attention in the context of EU competition law. One of the most significant questions is related to the determination of the scope of the jurisdiction of arbitration tribunal or the dispute resolution body within SSO. This concern includes the approach of the arbitra-

¹⁶³ Information from WIPO website ‘WIPO Arbitration for FRAND Disputes’ <<http://www.wipo.int/amc/en/center/specific-sectors/ict/frand/>> accessed 23 August 2014.

tion or the dispute resolution body regarding claims, which are related to competition law violations, breach of contract and etc.¹⁶⁴

The afore-specified aspect could be a separate discussion topic, however, the issue of the availability of an injunctive relief in the context of FRAND and recent developments delivered by the Commission would be among the most important ones. With regard to the arbitration proceedings, it should be specified, that the rules of the most arbitration tribunals allow arbitrators to apply interim measures, which may include an injunctive relief. Alternatively to the latter possibility, parties to the dispute their right to obtain an injunctive relief may exercise by referring to judicial authorities. As an example, such procedure is foreseen in the Art. 48 of WIPO Arbitration Rules.¹⁶⁵ In the event, that the dispute resolution bodies within the SSOs would have their permanent dispute resolution rules, which provide a framework for the dispute resolution proceedings (e.g. appointment and number of the arbitrators and etc.), and its own form of administration to assist in the process, the similar procedures regarding the injunctive relief would be applicable to these bodies as to the afore-discussed separate arbitration tribunals.¹⁶⁶

With regard to the afore-specified, it should mentioned, that in the event that the SEP and FRAND-related dispute resolution proceedings are taking place under the substantive law of EU member state, both of the afore-specified dispute resolution bodies while adjudicating will take into account the provisions of EU competition law.¹⁶⁷ This is due to the fact, that, according to the case *Eco Swiss*, the EU competition law provisions may be regarded as a matter of public policy within the meaning of the New York Convention.¹⁶⁸ This means, that the tribunal will consider the dispute at hand in the light of EU competition law, in order to prevent its award to be held unenforceable. Therefore, the availability of the injunctive relief in the situation of FRAND commitment will have to be evaluated in the light

164 Contreras and Newman (n 7) 1, 15-16.

165 World Intellectual Property Organization Arbitration Rules, 1 October 2002 (as amended 1 June 2014).

166 Julian D M Lew, Loukas A Mistelis, Stefan Kröll, *Comparative International Commercial Arbitration* (Kluwer Law International 2003) 35.

167 Pierre Heitzmann, 'Arbitration and Criminal Liability for Competition Law Violations in Europe' in Gordon Blanke, Phillip Landolt (eds), *EU and US Antitrust Arbitration: A Handbook for Practitioners* (Kluwer Law International 2011) 1251, 1257.

168 C-126/97 *Eco Swiss China v Benetton International NV* [1999] ECR I-03055, para 39.

of the recent developments of EU competition law, which can be illustrated by the *Samsung*¹⁶⁹ and *Motorola*¹⁷⁰ cases. This would mean, that if the SEP owner has made the FRAND commitment and the potential SEP user is a willing licensee¹⁷¹, then the SEP owner would be considered as abusing its dominant position, under Art. 102 TFEU.

Another group of issues, that may arise, are related to the confidentiality requirement. In general, there are not many examples of case law regarding the setting of licensing terms for SEPs. However, due to the fact, that the setting of licensing terms for SEPs usually is a matter of case by case basis, having more cases for guidance would be beneficial. With this regard, the question of the confidentiality of the decision in SEP and FRAND-related cases¹⁷² becomes important.

Although one of the advantages and features of alternative dispute resolution is that it is confidential, the standardization process, which could be regarded as having dual – private and public – nature, questions this feature. It is clear, that parties have legitimate interests to expect confidentiality, which is one of the criteria that make alternative dispute resolution more attractive than court proceedings.¹⁷³ On the other hand, the decisions regarding FRAND licensing terms would be useful for building up a practice in this field and could eliminate much of the current uncertainty that exists in the market. Such publication would create a body of case law upon which future FRAND determinations could draw and contribute to the decision-making in future SEP and FRAND cases.¹⁷⁴ Of course, the legitimate interests of the parties to the dispute should be respected. Therefore, similarly as it was proposed in the *Samsung*¹⁷⁵ case, it should be clearly determined by the rules of SSOs or rules of the arbitral tribunal, what information is regarded as non-confidential, to whom such information should be accessible and which sensitive information should be excluded from the public.¹⁷⁶

169 *Samsung* (n 85).

170 *Motorola* (n 86).

171 *Motorola* (n 86), paras 492-495; *Samsung* (n 85), para 65-69.

172 *Samsung* (n 85), para 90.

173 *Samsung* (n 85), para 16.

174 *Samsung* (n 85), para 111.

175 *Samsung* (n 85), para 103.

176 Contreras and Newman (n 7) 1, 18.

The establishment of the afore-discussed dispute resolution procedures as an alternative to court proceedings may also raise more concerns in the sense, that, for example, arbitration procedures and frameworks for patent-based arbitration remain largely untested.¹⁷⁷ In the case of SEPs, these procedures and frameworks remain almost completely unused.¹⁷⁸ This could be illustrated by the DVB Project. Although this SSO was established in 1993, its arbitration system has not been used yet. This raises doubts regarding the effectiveness of this arbitration system while solving SEP and FRAND-related disputes. However, there are opinions, stating, that, in general, referrals to arbitration encourages negotiations as a way of addressing SEP licensing controversies between the parties and, therefore, there exists only such a small number of such type of arbitration proceedings.¹⁷⁹

The afore-described issues regarding the establishment of dispute resolution bodies within SSOs or referring disputes to separate arbitral tribunals are not the only ones. In addition, with regard to the establishment of a new dispute resolution body such questions, as procedural rules, the number of members of the tribunal, the appointment of the members of the tribunal, the preclusive effect and etc. must be carefully discussed and answered. With regard to that, it should be pointed out, that in the standard-setting situation, SSOs play an important roles, because many of the mentioned aspects could be foreseen in the internal documents of SSOs, such as, IPR policies, Dispute Resolution policies or etc.

It is claimed, that any system of positive law which attempts to regulate matters relating to imperfectly understood mental or physical facts is problem loaded.¹⁸⁰ This problem more and more frequently is encountered in contemporary legal systems, when, due to the complexity of the object with which the law has to deal with, it becomes necessary for the law to act without knowing all the important facts and, thus, to raise difficult questions. However, as it has been stated in the context of competition law, although asking the right questions may be of little use, if it is not possible to provide with reliable answers, yet the acknowledgement of such limitations of our cognitive capacity may be in itself a big step ahead

177 Contreras and Newman (n 7) 1, 7.

178 *ibid* 7.

179 Contreras and Newman (n 7) 1, 8.

180 Joseph Straus, Courts as Pacemakers of Innovation - As Reflected in Case Law on Patentable Subject Matter (The Role of Courts in IP and Innovations, Proceedings of the 2013 Judicial Symposium in Korea, Seoul).

in enhancing the general debate.¹⁸¹ The adherence to such point of view over time may improve the understanding of how to react even to unknown legal situations in the future, one of which could be issues arising in the field of standard-setting. For this reason, it is important to further explore possible ways of resolving SEP and FRAND-related disputes, and SSOs in this case may be helpful.

Taking into consideration all the specified above, it is possible to conclude, that, due to the rapid technological development, the diverging interests of participants of the standard-setting process and the demand for standardization, the current system of the establishment and implementation of the standard into the industry by royalty setting of SEPs and deciding what is FRAND-compliant licensing terms, leads to time-consuming and multi-jurisdictional litigation. Under the current system, the courts without having specialised technical and economic knowledge are forced to make decisions in the realm of uncertainty. The latter situation has a negative influence on the technology developers, manufacturers, consumers and on the whole innovation process itself. Therefore, despite the afore-mentioned possible legal issues that may arise, it should be in the interest of the overall standardization community to consider the establishment of SEP and FRAND-related dispute resolution bodies or referring disputes to separate arbitration, that have not only legal but also technical and economic expertise, as a possible alternative to the current court system, and to establish widely followed methodologies over the resolution of SEP and FRAND-related licensing disputes in such alternative dispute resolution bodies.

¹⁸¹ Josef Drexel “Real Knowledge is to Know the Extent of One’s Own Ignorance: On the Consumer Harm Approach in Innovation-Related Competition Cases” [2010] *Antitrust Journal* 667, 677.

V. Conclusion

1. SSOs play a crucially important role in determining *de jure* standards that, later, become the basis for the business activities of many undertakings. Therefore, SSOs must not only be viewed as entities performing administrative functions, but as important players of standardization process able to support the effective implementation of the standard in the industry. SSOs' IPR policies should be perceived as highly important tools, which determine the relationship between the SSOs and their members with regard to essential IPRs in the context of standardization as well as affect how effectively the standard will be implemented into the industry. For this reason, the way in which SSOs, according to their IPR policies, take into consideration the essential IPRs and confer the rights and obligations related to these IPRs on their members is of fundamental importance. With regard to that, SSOs have the responsibility to design appropriate IPR policies, in order to make the standardized technology accessible to the users at the same time providing the SEP owners with the appropriate economic benefit.
2. Due to the variety of participants with diverging interests and complex technological aspects, it is difficult to come up with a universal SSOs' IPR policy, which would govern all the standard-setting procedures according to the principle 'one size fits all', would be enforceable and able to provide with more legal certainty all the parties at stake. Technically, economically and legally complicated situations, that arise while selecting and making the standard accessible to the industry participants, call for the application of flexible concepts in the context of standard-setting, which would provide the interested parties with wide, but at the same time, certain guidelines and would be sensitive to the economic, technical and legal aspects of a specific standardization situation.
3. ETSI's IPR policy is considered to be a role model of this kind of SSO's documents. Two types of provisions are pointed out as the most important for the implementation of the standards into an industry while at the same time guaranteeing appropriate financial returns

to the SEPs' owners: (i) the requirement for the owner of the essential IPR to disclose all the essential IPRs and (ii) the requirement for the owner of the essential IPRs to make an irrevocable FRAND declaration regarding the licensing of the afore-mentioned IPRs. Although the actions foreseen in these provisions take place during the standard-setting procedure, the impact of these actions (i.e. the disclosure of essential IPRs and FRAND commitment) on a specific SEP licensing situation, can be properly evaluated only after the standard is set. This calls for a discussion on the role of SSOs and their IPR policies in the post-standardization stages.

4. Although FRAND commitment is criticised for its high level of abstractness, it is clear, that finding the balance between the interests of the SEP owners and users calls for complying legal certainty with flexibility and observance of concrete circumstances. Despite its technical, economic and legal complexity, the whole standardization system should still have at least one common denominator. With regard to that, the open-endedness of the meaning of FRAND helps to achieve the main aim of the standardization, i.e. to create the widest availability of the standard to users and ensure substantial economic returns for the SEP owner by engaging both parties to participate in good faith negotiation.
5. Current situation, which arises while dealing with SEP and FRAND-related disputes leads to time-consuming and multi-jurisdictional litigation, where courts are forced to make decisions without having all the relevant technical and economic knowledge, has a negative influence on the technology developers, manufacturers, consumers and the innovation process itself. Therefore, it should be in the interest of the overall standardization community to consider the establishment of SEP and FRAND-related dispute resolution bodies or referring such disputes to separate arbitration tribunal, which would have not only legal knowledge, but also be aware of economic and technical aspects, and would act as a possible alternative to the current court system. In this case the role of the SSOs would be important in the sense, that such dispute resolution, which is alternative to the court proceedings, would be foreseen by the SSO IPR policies and, in the event, that dispute resolution bodies within SSOs would be established, SSOs would have an important role while administering them and guaranteeing

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their impartiality with the help of the internal documents of SSOs, e.g. IPR policies.

6. It seems, that the establishment of SEPs and FRAND-related dispute resolution bodies or referral of such disputes to separate arbitration may raise a number of competition law problems and may request to answer many institutional questions. In the context of SEPs, FRAND and standardization itself, these are regarded as new and complex issues that sometimes forces the legal system to act in the realm of uncertainty. However, taking into consideration the current importance of standards, SSOs should consider the establishment of widely followed methodologies, which foresee the procedures of dispute resolution on SEP and FRAND-related licensing before dispute resolution bodies within SSOs or separate arbitral tribunals.

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